A Model to Manage the Intention to Stay in the Nurse Profession of Nurse Students at the Army Nursing College

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Abstract

The objectives of this research are (1) to study the level of intention to stay in the nurse profession of the nurse students at the Army Nursing College, (2) to compare the intention levels between nurse students in different class years at the Army Nursing College, and (3) to model a scheme to manage the intention to stay in the nurse profession among the nurse students at the Army Nursing College. The sample includes 323 nursing students, who are surveyed with a questionnaire. The obtained data are then analyzed to find means, standard deviations, and further tested, using t-test, F-test, and multiple regressions. The research results find that the level of intention to stay in the nurse profession among the army nurse students is high ($\bar{x}$=3.89). The intentional level, however, do not differ among students in class years. In this model, there are two factors that affect the management of the intention level, including the general training factor (Beta = 0.422) and the job satisfaction factor (Beta = 0.229). The model has the power of 32.90 percent (R-squared = 0.329) to explain the level of intention to stay in the nurse profession and exhibits a positive, moderate relationship with the actual intention to stay (R = 0.573), which implies that if general trainings are supported and job satisfaction can be raised, then the level of intention to stay in the nurse profession among the army nurse students should be accordingly higher.
Keywords: Intention to Stay, Nurse Profession, Army Nurse Students

Introduction

The demand for healthcare services has been constantly increasing for many reasons. Among them are the development in medical technology and the policy of the Thai government who wishes to develop Thailand into a medical hub as the ASEAN Economic Community becomes functional. For these reasons, hospitals have to compete and develop to become "excellent" in medical services. The inclusive national healthcare program, which raises the tendency for people to exercise their rights to receive healthcare services, also sees an increase in claims from 62 percent of outpatients in 2007 to 80 percent in 2009 (Suntorntham, 2012).

Nonetheless, the shortage of nurses remains constantly problematic. The study by Thailand Nursing Council to gauge the need for nurses in the next ten years (Srisuphan and Sawaengdee, 2012) finds that from 1990 to 2019, Thailand needs nursing staff in the ratio of one nurse per 400 people, which translates to about 163,500-170,000 nurses in total. The census finds that Thailand has about 65.4 million population and foreign recipients of healthcare services of about 2 million persons, which means that Thailand should have had

approximately 168,500 professional nurses, whereas, in reality Thailand had only 125,250 professional nurses as of 30 June 2010. As such, Thailand remains short of professional nurses by about 43,250 of them, which requires Thailand to increase the number of nurse production from 6,000 nurses to 7,000-8,500 per year between 2006 and 2010, and to increase to 9,000 nurses per year between 2011 and 2016. In the nurse production process, however there are still some limitations in the shortage of nurse instructors by more than 1,000 instructors. Worse, while the loss of nurses out of the system increases with about 2,000 nurses retiring every year, some nurses leave the profession even before the time is right. The loss ratio among the latter is about 4.45 percent per year, with the main reasons of leaving being lack of promotion at work, health problems, low returns from work, hard work, lack of stability as a contract nurse without receiving a professional nurse position, effects from greater work burden, risks from work, lack of work-life balance, stress, and lack of job satisfaction, which makes the nurses eventually abandon the profession (Khunthar, 2014).

Finding a solution to the nurse shortage problem should, therefore, give a priority to keeping the personnel in the nurse profession. Academic institutions and nurse instructors should explain to applicants prior to their admissions that the selection of fields of study should follow a person's desire, and not their friends, and that the applicants should be committed to the selected profession in the future. The nurse instructors and more senior nurses should also explain to the applicants about the true nature of the profession and instill good attitudes and pride with regards to the nurse profession, so that the newcomers would feel the love and pride in their choice profession, which may reduce the number of resignations in the future.

In cases of army nurse students, the system has changed from all nurse graduates being positioned as government officers to most nurse students funding the nursing education by themselves with only a small minority receiving scholarship from the Royal Thai Army. The lack of job stability, as a result, means that the nurses may lack incentives to remain in the profession and make their decision to leave the profession more easily. A study to learn about the factors that are correlated with the intention to stay in the nurse profession among the army nurse students are, therefore, beneficial for building incentives among nurse students, which consequently should help solve the national problem of the nurse shortage.

Research Objectives

1) To study the intention level to stay in the nurse profession of the army nurse students
2) To compare the intention levels to stay in the nurse profession between army nurse students of different class years
3) To model the factors in managing the intention level to stay in the nurse profession of the army nurse students

Literature Reviews

In this research, the personal factors deemed to influence the level of the intention to stay in the nurse profession are (1) the length of time each individual has spent in the undergraduate program of nursing, because the experiences students receive in each year of study differ, and (2) the experiences that students receive from trainings or internships in each field of study, which differ between class years.

The professional values start from what the students had within themselves before they commence the nursing study and then when they are taught largely by the nurse instructors about those values during the entire nursing curriculum. The students are also able to develop their own professional values by observing as examples other nurses in patient wards and choose to make them their own. The development of students differs in each class year, with

the differences starting from when the students begin as freshmen to when they graduate. The difference still exists even between senior nurse students and new graduates (Schank, 2002).

The factors affecting the level of intention to stay in the nurse profession are based on Price and Mueller's study on the intention to stay in a job, which became the "Causal Model of Turnover" (Price and Mueller, 1981). The study finds that the factors influencing the intention to stay in a job are as follows.

1) Job satisfaction means the feelings of likes or dislikes towards the job one is doing and may involve job characteristics, whether one receives training, and challenges presented by the job.
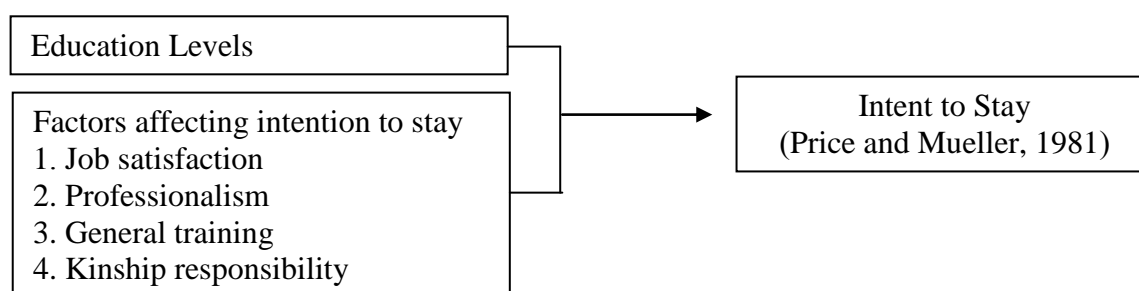
2) Professionalism means the level of performance according to rules, regulations, and standards of each profession. Professionalism is related to the intention to stay in a job, and if the individual is not satisfied, he or she may decide to change the job by resigning, transferring, or switching to a new job.

3) General training means the trainings each individual receives from an institution, so that he or she gains knowledge and skills suitable to their choice profession. For the professions which requires special knowledge, individuals particularly need to receive trainings effectively enough so that they are capable enough to perform professionally.

4) Kinship responsibility means the priority an individual may give to his or her kin and incidents that may happen to the kin, such as a kin's sickness which may affect the individual's performance in case that he or she cannot take a leave to take care of the kin.

The intention level in this study is specified as the intention that the sample would stay in the nurse profession for more than five years, which is consistent with the long-term research project that tracks the professional life and health of nurses for 20 years starting in 2009 (National Health Commission Office, 2012). It is also consistent with Chitpakdee's study (2013) of a group of professional nurses who have worked for no more than five years, which is the group that resigns from work the most. These studies bring the conclusion that nurses are medical personnel whose jobs are important to healthcare services but whose professional tenure may be very short, that is, often less than five years. The question asking about the intention level is meant to be answered in a scale just like the measurement of intention to stay in a job adopted by Price and Mueller, or the so-called Price and Mueller's Intent to Stay Scale (Price and Mueller, 1981).

Conceptual Framework

Research Methodology

This research is quantitative in nature. The population of this research is first-year to fourth-year army nurse students who are in school during the 2016 academic year, with the total population being 330 students. The sampling is done by computing the sample size that produces less than five-percent error. The sampling is done proportionally to the size of

group. The eventual sample whose data are complete totals at 323 individuals. The tool used to collect the data is the questionnaire. The data are analyzed to find means, standard deviations, and such statistics as t-test and F-test for the multiple regression analysis. The confidence level is determined at 95-percent level, and the significance level at five-percent.

Protection of Rights of the Sample: Ethical Consideration and Sample Protocols

The researcher has been allowed to collect the data following the approval by the Research Project Consideration Committee of the Army Medical Department. The letter IRBRTA 1587/2559 for the project number N011q/59 dated 15 November 2016 certifies that the research project's ethical standards are in accordance with the Declaration of Helsinki and the ICH GCP Guidelines. The data collected from the sample are confidential and the data would be presented only as a whole.

Results and Discussion

1) The intention level of army nurse students to stay in the nurse profession is high, which is not consistent with the research result that new-generation nurses younger than 30 years of age would have a very short tenure length of about three to four years (National Health Commission Office, 2012) and that the intention to stay in the nurse profession in the northern region is overall at the moderate level (Chitpakdee, 2013). It is, however, consistent with the research results that the intention to stay in the nurse profession among police nurse students is at the high level or more (Urairak, 2016) and that the intention to stay in the job among nurses of Siriraj Hospital's operation rooms is mostly at the high level (Konping, 2009).

Some research also points out that academic institutions should instill good attitudes into students while conducting the nursing curriculum. There should also be nurse instructors or more senior nurse students who can explain the reality of the nurse profession. Selecting the field of study that is consistent with the individuals' desires and instilling in the individuals the attitudes and the pride of the nurse profession should make them love and be proud of their profession, which, in turn, should reduce subsequent resignations from their jobs (Khunthar, 2014). This research also reflects the type of organization that has a good management and has an incentive system in place to increase the level of intention to stay in the nurse profession, which in the future would translate into actual aspirations and intentions to remain in the nurse profession.

2) As for the years of study, it is found that army nurse students who study in different class years do not differ in the levels of their intention to stay in the nurse profession. This is not consistent with the research that finds that the amount of time the students have spent in the nurse curriculum would impact their developmental levels from the time they are freshmen to the time they graduate (Schank, 2002).

It may be explained that the Army Nursing College run its curriculum, whether it is theoretical classes, practical trainings, or other professional activities, with close cares from expert instructors and with a system of upperclassmen personally taking care of underclassmen, which is typical for the educational system in the military's academic institutions. By this means, students from different class years are united and experiences may be exchanged between upperclassmen and underclassmen, such that problems can be quickly realized and solved. The provision of scholarships, the instillation of attitudes and awareness of the nurse profession, and the policy to give every graduate a post as a government officer, even if the graduates are personally funded, all possibly eliminate the differences between class years and create a similarly high level of intention to stay in the nurse profession regardless of class years.

3) The factors that affect the intention to stay in the nurse profession influence the way the intention to stay in the nurse profession among the army nurse students can be managed. It is

found that the factors involving general trainings and job satisfaction can be used as the predictive factors in a model, as shown in Table 1. The power of relationship between these factors and the intention to stay in the nurse profession among the army nurse students is moderate (R = 0.573), and the model's predictive power in determining the intention to stay in the nurse profession is 32.90 percent. The standard deviation of the regression equation is 0.756. The very low value of the standard deviation implies that the regression equation is highly reliable.

Table 1 Statistics to Determine the Suitability of the Regressions

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.539[a]	.290	.288	.776
2	.573[b]	.329	.325	.756

a. Predictors: (Constant), General trainings
b. Predictors: (Constant), General trainings, and Job satisfaction

The independent variables that affect the level of intention to stay in the nurse profession can be ranked in terms of their influence from having a larger to having a smaller influence are general trainings (Beta = 0.422) and job satisfaction (Beta = 0.229). The relationships of either independent variable with the dependent variable are of the same direction, with the positive beta coefficients. The result implies that when general trainings and job satisfaction are promoted, the level of intention to stay in the nurse profession should accordingly increase, which corresponds to Price and Mueller's idea of the intention to stay in a job (Price and Mueller, 1981) in two out of four factors, that is, job satisfaction and general trainings. These two factors may also be used to predict directly the intention to stay in the nurse profession.

The other two factors that the result does not correspond with are professionalism and kinship responsibility. For professionalism, it may be explained that the Army Nursing College has incorporated materials in the curriculum to make the students realize the professional values while learning and interning. The College may have also raised the awareness among the students that the nurse is a profession highly needed by the society and the nursing professional organization is legally available in the Thailand Nurse Council to protect the nurse profession, whereby the students should feel confident and protected with regards to their future professional status. As for the kinship responsibility, the army nurse students may have been highly aware of this factor, and they may feel that, while the nurse profession has to sacrifice and has many responsibilities, which reduces the opportunity for the nurses to care for their relatives, the nurses may always be able to use their professional knowledge to care for the relatives whenever they are ill. However, each organization should pay attention to the possibility of changes being made to interning or working times, so that the employees may be able to care for their relatives when necessary. This is consistent with the research that finds that the balance between professional burdens and family responsibilities affects the intention to stay in the job (Derby-Davis, 2014).

There are many researches whose results are consistent with this one. Job satisfaction may be used to predict the intention to stay in a job, with them being positive correlated (Kudo, Satoh, Hosoi, Miki, Watanabe, Kido & Aizawa, 2006; Ashraf, Mashael & Nora, 2008; Christine, Carol, William & Susan, 2009; Ingrid, Bernard & Isabelle, 2014; Hong, Carol, Yuefeng & Ying, 2015). On general trainings, the finding that having general trainings affects the intention to say in a job is supported by multiple researches. Receiving additional trainings regularly adds to the intention to stay at a job (Rosenblatt, Andrilla, Curtin & Hart, 2006). Receiving supports for higher education generates greater job satisfaction (Derby-

Davis, 2014), which, in turn, adds to the intention to stay in the nurse profession. The nurse instructors have a role in promoting general trainings, where they need to emphasize the building of good attitudes with regards to the nurse profession for nurse students and the adjustment of attitudes should start since they receive nursing education (Khunthar, 2014). More researches find that the improvement of understandings in the factors affecting the intention to stay in the job for nurses, so that these influential factors may be used to construct strategies for increasing the intention to stay in the job for nurses, would help increase the number of nurses who are willing to put their hearts and dedication into healthcare services at the best of their energy and ability (Cowden & Cummings, 2011).

Conclusion

It can be concluded from the research that the appropriate model for the intention to stay in a job contains two independent variables, including the variables on general trainings and on job satisfaction as shown in Table 2. The coefficients of the regression can be used to construct a predictive multiple regression equation with such standardized coefficients as:

$\hat{Y} = 0.422*\text{Level of general trainings} + 0.229*\text{Level of job satisfaction}$

Also, the R-value, which indicates the power of the relationship between the group of independent variables and the dependent variables or the so-called multiple correlation, is equal to 0.573. The closer the R-value to one, the stronger the relationship. The R-value at 0.573, hence, implies a moderate relationship. When considering R-squared, which indicates the influence of the entire group of independent variables on the dependent variable, it is found that this set of independent variables influences the dependent variable or may predict 32.90 percent of the movement of the dependent variable. The independent variables ranked by its influential power on the intention to stay in the nurse profession among the army nurse students from most to least are the level of general trainings and the level of job satisfaction, with their beta coefficients having the values of 0.422 and 0.229, respectively.

Table 2: Coefficients on the Independent Variables of the Regressions

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1(Constant)	-.384	.376		-1.021	.308
Level of general trainings	1.032	.090	.539	11.451*	.000
2(Constant)	-.906	.386		-2.348	.019
Level of general trainings	.809	.102	.422	7.929*	.000
Level of job satisfaction	.400	.093	.229	4.297*	.000

a. Dependent Variable: Intention to stay in a job
* Statistically significant at five-percent level

Recommendations

The independent and the dependent variables are positively correlated. Therefore, understandings of factors that affect the intention to stay in a job should be promoted, and such factors should be raised as they would accordingly increase the level of intention to stay in a job to a higher level. Additional factors that may affect the intention to stay in a job should also be examined. Such factors are, for example, job earnings, job burdens, professional freedom, and leadership status. Even when nurse students are still in school, the instruction in the nursing curriculum may increase the awareness on these issues, which may differ from the education in other fields of study or in other professions. The building of

awareness in an inclusive way may be used as the guideline to improve the intention to stay in a job further and more effectively.

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